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ABSTRACT

The three two-page briefs in this packet focus on ways that teachers and administrators can improve student achievement through emphasizing higher-level skills and improving learning conditions and school climate. "How Can We Use Effective Teaching Methods to Boost Student Achievement?" suggests enhancing students' questioning skills and expecting and boosting their high performance through teaching methods that include integrated curriculum, cooperation between teachers and students, cooperative learning in student groups, and real-life assessment. "How Can We Enhance Conditions for Learning?" recommends methods to improve the classroom environment, classroom organization, instructional materials and equipment, and language so that both male and female students feel comfortable and safe. "What Can We Do to Enhance School Climate?" provides concise actions to make school a more positive place for all students through raising and changing teacher expectations, encouraging more respectful student-teacher interaction, and improving classroom management and discipline. Each of the briefs lists resource organizations for further information. (KC)

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ED 457 315

EQUITY

- HOW CAN WE USE EFFECTIVE TEACHING METHODS TO BOOST STUDENT ACHIEVEMENT?
- HOW CAN WE ENHANCE CONDITIONS FOR LEARNING?
- WHAT CAN WE DO TO ENHANCE SCHOOL CLIMATE?

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How Can We Use Effective Teaching Methods to Boost Student Achievement?

Throughout the past thirty years, many researchers have identified effective teaching methodologies, especially as they relate to equity issues. Much of the research revolves around questioning skills that teachers use and high performance teaching methods. The recommendations below and their brief explanations are a composite of this research. For further information and specific research studies investigate the resources listed.

Questioning Skills

Coach males and females toward fuller, more elaborate answers. Often teachers ask male students "What do you mean by that?" but do not do the same for female students. By requesting fuller answers, students are encouraged to show a deeper understanding of the content and processes used.

Wait equally long for males and females to answer questions before going on to other students. Teachers often perceive a male's silence after a question as the effort to formulate an answer, whereas they may attribute a female's silence to "shyness" or lack of a suitable response. Students have less opportunity to respond in classes in which they are having the least success.

Monitor the types of questions asked of female and male students. Teachers often ask females factual questions and ask males problem-solving questions. This gives the perception that females are not capable of independent thought.

Ask all students higher-level questions. The lowest levels of student achievement are in classes where mostly low-level questions are asked. By answering higher-level questions, students are required to share a deeper understanding of the material, integrate technical and academic content, and apply their knowledge to the world outside the classroom.

Respond extensively to comments made by males and females. Males often receive more reinforcement than females for intellectual participation. Teachers also tend to credit males with "authorship" (e.g., "As Bob pointed out. . . ") of their comments more often than females.

High Performance Teaching

Expect students to do well and encourage parents to expect the same. Research shows that students achieve more when teachers hold high expectations. Regularly assign homework, expecting it to be completed. Review basic study skills and mastery of academic and technical content and skills. Press students toward high academic pursuits.

Provide opportunities for female students to explore roles, experiences, and activities that are generally reserved for male students. Females may not ask for the opportunity to construct an electrical circuit or design a computer graphic, but they participate eagerly when given the chance to do so. They may need extra time if they are unfamiliar with the content and processes underlying the tasks.

Relate the concepts or tasks to how useful they are now and in the future. Males are often comfortable exploring for the sake of exploration, while females tend to need a sense of purpose and reason. Students tend to want to learn if they understand that what they are learning will be of value to them in the future.

Encourage students to organize information and consider alternatives. By doing so, students learn to assimilate and build on prior knowledge rather than reproduce knowledge through memorization. This creates an in-depth understanding of content rather than a transmission of knowledge.

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How Can We Use Effective Teaching Methods to Boost Student Achievement? *continued*

Traditional Teaching	High Performance Teaching
• Material is presented in small segments that can be absorbed one at a time.	• Academic content is integrated across curricula.
• Teaching is seen as a transmission of knowledge from the teacher to the students; learning is passive.	• Teaching is seen as a construction of knowledge by both the teacher and students; learning is active.
• Educators predominantly deliver instruction targeting one aspect of intelligence.	• Educators deliver instruction through various strategies designed to capitalize on students' multiple intelligences.
• Students are taught the correct responses to given stimuli.	• Students organize their own work, sequencing and pacing the work to meet goals.
• Students work independently; the teacher directs the learning.	• Students primarily work cooperatively with others; the teacher serves as mediator/coach.
• Concepts and skills are learned separately from the context in which they will be used. Students engage in minimal problem-solving.	• Concepts and skills are learned through the context in which they will be used. Students engage in problem-solving and develop deep understanding.
• Students are assessed on providing the "right" answer, rather than learning from mistakes.	• Students are involved in assessing their performance in authentic projects or situations.

Adapted from: Berryman, S. & Bailey, T. *The Double Helix of Education and the Economy* (NY, NY: Institute on Education and the Economy, Teachers College, 1992).

Use various problem-solving approaches such as scientific method, exploration and discussion, and qualitative research methodology. Give credit for using various approaches to arrive at valid conclusions. Also give credit for discovering that certain approaches do not work.

Develop activities, projects, and simulations that require students to apply content and thinking skills to situations and problems they might incur in their personal, family, work, and community lives. When involved in contextual learning, students become more motivated and use higher-level thinking skills. Then learning is not a set of facts to memorize for a teacher, but becomes a vehicle to solve problems and think effectively.

Assess students' academic and technical knowledge and skills through real-life problems. Even though these types of assessments appear complicated, they more adequately evaluate mastery of competencies and skills. Requiring elaborate oral and written communication in the assessment encourages students to critically think about what they know and how to go about using that knowledge in the world outside the classroom. As a result, achievement is often higher.

For more information contact Gender Equity, Ohio Career-Technical and Adult Education, Ohio Department of Education, 65 S. Front St., Columbus, OH 43215-4183; (614) 644-6238.

Resources

Research studies, videos, and teaching resources are available through the Sex Equity Resource Library at the Center on Education and Training for Employment, (614) 292-4353 or (800) 848-4815.

Gender equity teaching modules for use in secondary and middle school classrooms are available through the Center on Education and Training for Employment, (614) 292-4277 or (800) 848-4815.

Organizations such as those listed below provide information and resources on equity-related issues in the classroom:

American Association of University Women
800-326-AAUW
http:/www.aauw.org

Generating Expectations for Student Achievement
(909) 246-2106
graymill@iinet.com

National Coalition for Sex Equity in Education
(908) 735-5045
http://www.ncsee.org

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UMC00343

How Can We Enhance Conditions for Learning?

Throughout the past thirty years, many researchers have studied schools to identify and understand optimal conditions for learning, especially as they relate to equity issues. Much of the research revolves around the classroom environment and organization, instructional materials and resources used, and oral and written language use. The recommendations below and their brief explanations are a composite of this research. For further information and specific research studies, investigate the resources listed.

Classroom Environment

Adapt program facilities so that both males and females have convenient access to restrooms, locker rooms, and changing areas. Many schools were built before students were encouraged to take nontraditional courses. Nontraditional students often perceive inconvenient access as a barrier to completing a career-technical program or participating in a course.

Evaluate the learning environment to make sure it is welcoming for students of both genders and various races. Posters, displays, and other equipment and visual materials need to represent both genders and various races. Assess how students react to entering the classroom.

Make sure students are welcomed by yourself and other students. Encourage students to talk with one another. Make sure no student is isolated and that students do not self-segregate according to gender or race. Pay special attention to nontraditional students and situations that may involve harassment.

Classroom Organization

Monitor lab assignments so that all students share equally in the various tasks. Setting up, conducting the experiment or tasks, writing the lab report, and cleaning up are important tasks for both males and females to master. Make sure female students participate in "dirty" work and male students participate in "clerical" work. Encourage female students to experiment with materials and equipment on their own.

Allow girls to work in pairs or small groups. Adolescent girls have a strong need for social contact. Capitalize on this need by placing them in pairs or small groups when they may be uncomfortable using unfamiliar equipment.

Instructional Materials and Equipment

Use instructional materials that are inclusive, not exclusive. If texts, posters, or handouts show only one demographic group, such as white females in nursing, then they should not be purchased. If certain genders or ethnic groups are underrepresented in already purchased materials, address these issues with students and have them identify ways to make the materials more inclusive.

Evaluate instructional materials for subtle bias and sex stereotyping. Identify any roles and lifestyles portrayed for only males or females. Assess if the roles and lifestyles are realistic or stereotypical. Determine the attitudes portrayed and their potential effects on students. Watch for loaded words that might insult or ridicule males and/or females.

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Make sure all students have equal access to and use of equipment. If a lab has better and worse equipment in the same room, make sure males and females have equal access to the better equipment. In addition, make sure all students get equal time with equipment. Schedule turn-taking over "first come, first served" rules to give shy students a more complete opportunity to use unfamiliar equipment.

When safety is not an issue, encourage students to "mess around" on unfamiliar equipment, rather than use unfamiliar equipment for specific purposes or tasks. It may seem like wasting time, but students are developing problem-solving skills and increasing their familiarity and comfort in using unfamiliar equipment, something they may not have experienced in the past.

Language

Use gender-neutral language. When referring to students or employees in an industry area, use inclusive, not exclusive, language. For instance, do not say "the gals in child care" or "the guys in engineering," but refer to people as students or employees. Use gender-neutral terms when discussing careers, such as "firefighter" instead of "firemen" or "server" instead of "waitress." Watch the use of pronouns. Do not refer to all doctors as "he" or administrative assistants as "she."

Develop recruitment materials free of sex bias and stereotyping. Evaluate the graphics, photographs, and text for underrepresentation or misrepresentation of certain genders or ethnic groups. Make sure subtle biases are not communicated through the text.

Resources

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Organizations such as those listed below provide information and resources on equity-related issues in the classroom:

American Association of University Women (AAUW)
1111 Sixteenth St., N.W.
Washington, D.C. 20036
800-326-AAUW
http:/www.aauw.org

Generating Expectations for Student Achievement (GESA)
Graymill, 22821 Cove View St.
Canyon Lake, CA 92587
(909) 246-2106
graymill@iinet.com

National Coalition for Sex Equity in Education (NCSEE)
PO Box 534
Annandale, NJ 08801-0534
(908) 735-5045
http://www.ncsee.org

Wider Opportunities for Women (WOW)
815 15th St., NW
Suite 916
Washington, D.C.
(202) 638-3143
http://www.w-o-w.org

Women's Educational Equity Act Resource Center (WEEA)
55 Chapel St.
Newton, MA 02458-1060
(800) 225-3088
http://www.edc.org/WomensEquity

For more information contact Gender Equity, Ohio Career-Technical and Adult Education, Ohio Department of Education, 65 S. Front St., Columbus, OH 43215-4183; (614) 644-6238.

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What Can We Do to Enhance School Climate?

Throughout the past thirty years, many researchers have studied schools to identify and understand positive school climate, especially as it relates to equity issues. Much of the research revolves around teacher expectations, classroom management and discipline, and student-teacher interaction. The recommendations below and their brief explanations are a composite of this research. For further information and specific research studies, investigate the resources listed.

Teacher Expectations

Hold high expectations for all students, especially for female and minority students. Research shows that students achieve more when teachers hold high expectations. Female and minority students often receive less encouragement.

Make sure that males and females receive instruction in the same competencies and have the same expectations for performance. For instance, asking males to create a computer program and females to run a computer program reflects similar but very different competencies. Mastery of identical skills is important, especially in specialization competencies.

Resist assisting students, especially females, in completing tasks. Teachers often assist girls in completing tasks whereas they teach boys to do the tasks themselves. This encourages stereotypic roles and communicates that females cannot independently complete tasks.

Encourage students in their abilities and their efforts. Boys often attribute success to ability and failure to effort while girls often attribute failure to ability and success to effort. Help students appreciate their accomplishments rather than dwell on their limitations.

When giving constructive criticism, focus the criticism on the academic task, offering suggestions to improve the performance and encouraging students in their efforts and abilities. When teachers criticize the academic performance of boys, they often include suggestions to soften the blow. When teachers criticize the academic performance of girls, they often offer no suggestions, votes of confidence or attribution to effort. Constructive criticism coupled with encouragement is more helpful for all students.

Monitor the academic confidence level of students. In academic performance, the change in confidence comes first, followed by a drop in achievement. Teachers need to be astute in noting confidence levels.

Student-Teacher Interaction

Expect mutually respectful, nonviolent behavior from male and female students. Do not tolerate sexist, degrading conversation about males or females, including jokes and offhand remarks. Peer-to-peer harassment is the most common type of harassment in schools. Model and expect students to treat one another with respect.

Encourage nonviolent means to resolve conflicts. Be aware of subtle power and control issues as well as blatant violence among male and female students. Females are the primary victims of violence although males are victims too. Do not adopt biased attitudes such as "boys will be boys" and "girls stab each other behind their backs." Power struggles, control issues, and physical and verbal violence should not be tolerated.

Develop an atmosphere of trust, respect, and confidentiality. Students may not talk or seek help

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when experiencing discrimination, harassment, or violence due to shame, isolation, or terror. By respecting students and ensuring school procedures are followed when dealing with these issues, students can become more trusting and self-empowered.

Affirm students for their own uniqueness, not for how they earn or prove their gender. Help every student understand that maleness and femaleness are something that one *is*, not something one *does*. This will reduce rigid role expectations and stereotypical career choices.

Classroom Management and Discipline

View each student as an individual with unique talents and abilities. Students are often labeled due to their gender or race, rather than evaluated for their unique temperaments and learning styles. More male students than female students tend to be diagnosed with learning disabilities and special education needs. Black and Hispanic students are underrepresented in gifted and talented programs and overrepresented in classes with low expectations.

Monitor students for at-risk behaviors. Females tend to exhibit "quietly disturbed" behaviors such as eating disorders, sexual activity, depression, and alcohol and drug use. Males tend to exhibit "acting out" behaviors such as delinquent acts, anti-social behaviors, sexual activity, and alcohol and drug use. These behaviors are not gender exclusive. There is a cross-over by gender, particularly among girls.

Be consistent in disciplining specific student misbehaviors. When male and female students are misbehaving equally, the males are more likely to get harsher reprimands. Be firm, consistent, calm, and respectful when disciplining inappropriate behaviors.

Evaluate discipline methods so they reduce the negative impact on student learning and achievement. More male students than female students are referred to school authorities and receive more in-school suspensions. Consider discipline methods that will keep students learning but provide consequences that are appropriate.

Resources

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